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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,833	06/27/2006	Hitoshi Ohmuro	292154US40PCT	3449

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EXAMINER	
HARLEY, JASON A	

ART UNIT	PAPER NUMBER
2468	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/584,833	OHMURO ET AL.	
	Examiner	Art Unit	
	Jason Harley	2468	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/27/06, 5/29/08, 9/9/08, 3/27/09, 4/27/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This communication is in response to the application filed on 6/27/06 in which claims 1-19 are presented for examination.

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang et al. U.S. PG Pub No. (2004/0128128).

As to claim 1, Wang teaches in packet communication between a communication apparatus including at least a transmitting unit and one or more other communication apparatuses including at least a receiving unit, an acoustic signal packet communicating method comprising: in the transmitting unit (Wang, par 0003, 0070). The paragraph shows communication apparatuses in a packet network being able to receive acoustic signal.

Wang show the step of dividing an acoustic signal such as a voice or music signal into given time segments called frames to generate a frame acoustic signal; the step of generating data corresponding to the frame acoustic signal (hereinafter referred to as "acoustic signal corresponding data") from the frame acoustic signal (Wang, abstract); and the step of containing the frame acoustic signal and the acoustic signal corresponding data in packets and transmitting the packets; in the receiving unit, the step of storing received packets in a receiving buffer (Wang,, abstract, par 0003, 0070). The abstract and paragraph the music signal partitioned into frames and the acoustic signal corresponding to digital packets.

Wang also show the step of specifying the frame number of a frame to be extracted; a loss detecting step of determining whether or not a packet containing a frame acoustic signal associated with the frame number of the frame to be extracted is stored in the receiving buffer if it is determined in the loss detecting step that a packet containing the frame acoustic signal associated with the frame number of the frame to

be extracted is stored in the receiving buffer, an acoustic signal packet decoding step of extracting the frame acoustic signal from the packet stored in the receiving buffer and providing the frame acoustic signal as a frame output signal (Wang, par 0011-0014, 0019, 0023, 0049, 0054, 0055, 0058). The paragraphs show loss detection and determining a frame number to be extracted is in a buffer, and decoding the frame to fill in the loss frame.

Wang disclose if it is determined in the loss detecting step that the packet containing the frame acoustic signal associated with the frame number of the frame to be extracted is not stored in the receiving buffer (hereinafter referred to as "if a packet loss occurs"), a loss handling step of extracting acoustic signal corresponding data for the frame (hereinafter referred to as a "lost frame") from a packet stored in the receiving buffer and generating a frame output acoustic signal by using the acoustic signal corresponding data (Wang, par 0011-0014, 0019, 0022). The paragraphs show detecting audio signal associated with the frame, and unpacking the signal into a bit stream indicative of audio signals.

Wang provide the step of concatenating frame output acoustic signals outputted from the acoustic signal packet decoding step or the loss handling step and outputting a concatenated frame output acoustic signal (par 0003, 0019, 0022). The paragraphs show unpacking the signal into a bit stream indicative of audio signal.

Wang provide the acoustic signal packet communicating method being characterized by comprising the steps of: in the transmitting unit, including, in the same packet that contains a frame acoustic signal, acoustic signal corresponding data for a

frame having a frame number different by a value specified by delay amount control information from the frame number of the packet and delay amount control information and transmitting the packet (Wang, par 0023, 0054, 0055, 0065, 0070). The paragraphs show corresponding data for a frame number specified by a delay amount control information from the frame number of the packet.

Wang also disclose in the receiving unit, if a packet loss occurs, obtaining acoustic signal corresponding data having the same frame number as that of a lost frame from the packet in the receiving buffer by using the delay amount control information included in the packet (Wang, par 0022, 0054, 0058, 0065). The paragraph shows a receiver unit obtaining the same frame number as the lost frame.

As to claim 2, Wang describe the acoustic signal packet communicating method according to claim 1, characterized in that, in packet communication between one communication apparatus including both of the transmitting unit and the receiving unit and one or more other communication apparatuses including both of the transmitting unit and the receiving unit, the acoustic signal packet communicating method comprising: in the receiving unit, both or one of a first determining step of determining a jitter state of a received packet and a second determining step of determining a loss state of a received packet (Wang, par 0003, 0004, 0008, 0070). The paragraph shows communication apparatuses in a packet network being able to receive acoustic signal

for determining packet loss.

Wang the step of using the result of the determination made in any of the determining steps to determine the number of packets to be stored in the receiving buffer (hereinafter referred to as the "targeted value of the number of stored packets"(par 0055); and in the transmitting unit in the same communication apparatus that includes the receiving unit, the step of setting the delay amount control information to a value smaller than or equal to the targeted value of the number of the stored packets.(Wang, fig 4, 13, par 0022, 0054,0062, 0065, 0070). The paragraphs show determining the number of packets to be stored in a buffer and a receiving unit for setting a lag amount control information, and the delay amount having value smaller than or equal to the number of packets to be stored. It is also shown where are feed back to the playback device of the mobile terminal.

As to claim 3, Wang conveys the acoustic signal packet communicating method according to claim 1, characterized in that, in packet communication between one communication apparatus including both of the transmitting unit and the receiving unit and one or more other communication apparatus including both of the transmitting unit and the receiving unit, the acoustic signal packet communicating method comprising, in the receiving unit, both or one of a first determination step of determining a jitter state of a received packet and a second determination step of determining a loss state of a received packet (Wang, par 0003, 0004, 0008). The paragraph shows communication

apparatuses in a packet network being able to receive acoustic signal for determining packet loss.

Wang the step of using the result of the determination made in the determination step to determine the number of packets to be stored in the receiving buffer (hereinafter referred to as the "targeted value of the number of stored packets"); and the step of sending the targeted value of the number of stored packets to the transmitting unit in the same communication apparatus(Wang, par 0054, 0070); and in the transmitting unit in the same communication apparatus that includes the receiving unit, the step of containing the targeted value of the number of stored packets sent from the receiving unit in a packet as information for specifying delay amount control information to be set in the transmitting unit at the other end of communication (Wang, par 0022, 0062, 0065, 0070). The paragraphs show determining the number of packets to be stored in a buffer and a receiving unit for setting a lag amount control information. Measuring the number of packets stored in the buffer is shown and the apparatus having the ability to switch to the transmitting unit to send the data is shown also.

As to claim 4, Wang describe the acoustic signal packet communicating method according to claim 1, characterized in that, in communication between one communication apparatus including both of the transmitting unit and the receiving unit and one or more other communication apparatuses including both of the transmitting

unit and the receiving unit, the acoustic signal packet communicating method comprising: in the receiving unit, the step of measuring the number of packets stored in the receiving buffer (hereinafter referred to as the "remaining buffer amount") (Wang, abstract, par 0003, 0004, 0008, 0054, 0070). Measuring the number of packets stored in the buffer is shown, and the communication apparatuses in a packet network being able to receive acoustic signal for determining packet loss.

Wang show and the step of sending the remaining buffer amount to the transmitting unit in the same communication apparatus; and in the transmitting unit in the same communication apparatus that includes the receiving unit, the step of containing the remaining buffer amount sent from the receiving unit in a packet as information for specifying delay amount control information to be set in the transmitting unit at the other end of communication and transmitting the packet (Wang, par 0003, 0054, 0065). The paragraph shows the buffer information is used to determine lag value to recover the loss in the packet transmission.

As to claim 5, Wang illustrates in communication between one communication apparatus including at least a transmitting apparatus and one or more communication apparatus including at least a receiving unit, an acoustic signal packet transmitting method comprising the steps of: in the transmitting unit, dividing an acoustic signal such as a voice or music signal into given time segments called frames to generate a frame acoustic signal; generating data corresponding to the frame acoustic signal (hereinafter

referred to as "acoustic signal corresponding data") from the frame acoustic signal (Wang, abstract, par 0003, 0070). The paragraph shows communication apparatuses in a packet network being able to receive acoustic signal. It is also shown where the music signal partitioned into frames and the acoustic signal corresponding to digital packets.

Wang show containing the frame acoustic signal and the acoustic signal corresponding data in packets and transmitting the packets(par 0003), the acoustic signal packet transmitting method characterized by comprising the step of, in the transmitting unit, including, in the same packet that contains the frame acoustic signal, acoustic signal corresponding data for a frame having a frame number different by a value specified by delay amount control information from that of the packet and the delay amount control information and transmitting the packet (par 0003, 0004). The paragraphs show acoustic signal corresponding in packets and transmitting in the same packet that contains the frame acoustic signal, acoustic signal corresponding data for a frame having a frame number different by a value specified by delay amount.

As to claim 6, Wang creates the acoustic signal packet transmitting method according to claim 5, characterized in that, in communication between one communication apparatus including both of the transmitting unit and the receiving unit and one or more other communication apparatuses including both of the transmitting unit and the receiving unit the acoustic signal packet transmitting method comprises the step of, in

the transmitting unit (par 0003, 0004, 0070). The paragraphs show communication devices being able to transmit and receive acoustic signals.

Wang show setting the delay amount control information to a value smaller than or equal to the number of packets to be stored in the receiving unit in the same communication apparatus that include the transmitting unit, the number of packets being determined at that receiving unit (Wang, fig 4, par 0054). The paragraph and figure shows determining a delay amount to a value smaller than or equal to the number of packets to be stored.

As to claim 7, Wang explains the acoustic signal packet transmitting method according to claim 5, characterized in that, in communication between one communication apparatus including both of the transmitting unit and the receiving unit and one or more other communication apparatuses including both of the transmitting unit and the receiving unit (par 0003, 0070); the acoustic signal packet transmitting method comprises the step of: in the transmitting unit; containing in a packet the number of the packets to be stored in the receiving unit of the same communication apparatus that includes the transmitting unit, the number of packets being determined at that receiving unit, as information for specifying delay amount control information to be set in the transmitting unit at the other end of communication and transmitting the packet (par 0004, 0062). The paragraphs show communication devices being able

to transmit and receive acoustic signals and specifying a delay amount to be transmitted to other mobile terminals.

As to claim 8, Wang displays the packet transmitting method according to claim 5, characterized in that, in communication between one communication apparatus including both of the transmitting unit and the receiving unit and one or more other communication apparatuses including both of the transmitting unit and the receiving unit, the acoustic signal packet transmitting method comprises the step of: in the transmitting unit containing in a packet the number of packets stored in the receiving buffer that is measured in the receiving unit in the same communication apparatus that includes the transmitting unit, as information for requesting to set delay amount control information to be set in the transmitting unit at the other end of communication.(par 0054, 0062, 0065, 0070). The paragraphs show determining the number of packets to be stored in a buffer and a receiving unit for setting a lag amount control information

As to claim 9, claim 9 is a claim to a apparatus to carry out the apparatus of claim 1. Therefore claim 9 is rejected under the same rationale set forth in claim 1.

As to claim 10, Wang defines the acoustic signal packet receiving method according to claim 9, characterized in that, in packet communication between one communication apparatus including both of the transmitting unit and the receiving unit and one or more other communication apparatuses including and both of the transmitting unit and the receiving unit, the acoustic signal packet receiving method comprises: in the receiving unit, both or one of a first determination step of determining a jitter state of a received packet and a second determination step of determining a lost state of a received packet (Wang, par 0003, 0004, 0008, 0070). The paragraph shows communication apparatuses in a packet network being able to receive acoustic signal for determining packet loss.

Wang disclose the step of determining the number of packets to be stored in a receiving buffer by using the result of the determination made at any of the determination steps; and the step of sending the number of packets to be stored in the receiving buffer to the transmitting unit in the same communication apparatus. (Fig 4, 13, par 0022, 0054, 0062, 0065, 0070). The paragraphs show determining the number of packets to be stored in a buffer and a receiving unit for setting a lag amount control information, and the delay amount having value smaller than or equal to the number of packets to be stored. It is also shown where are feed back to the playback device of the mobile terminal.

As to claim 11, Wang conveys the acoustic signal packet receiving method according to claim 9, characterized in that, in packet communication between one communication

apparatus including both of the transmitting unit and the receiving unit and one or more other apparatuses including both of the transmitting unit and the receiving unit (par 0003, 0070), the acoustic signal packet receiving method comprises the steps of: in the receiving unit, measuring the number of packets stored in the receiving buffer (par 0054) (hereinafter referred to as the "remaining buffer amount"); and sending the remaining buffer amount to the transmitting unit in the same communication apparatus (par 0070). The paragraphs show a communication apparatus having a transmitting and receiving unit, and one more of this same apparatus. Measuring the number of packets stored in the buffer is shown and the apparatus having the ability to switch to the transmitting unit to send the data is shown also.

As to claim 12, claim 12 is a claim to a apparatus to carry out the apparatus of claim 1. Therefore claim 12 is rejected under the same rationale set forth in claim 1.

As to claim 13, claim 13 is a claim to a apparatus to carry out the apparatus of claim 1. Therefore claim 13 is rejected under the same rationale set forth in claim 1.

As to claim 14, claim 14 is a claim to an apparatus to carry out the apparatus of claim 2. Therefore claim 14 is rejected under the same rationale set forth in claim 2.

As to claim 15, claim 15 is a claim to an apparatus to carry out the apparatus of claim 3. Therefore claim 15 is rejected under the same rationale set forth in claim 3.

As to claim 16, Wang create the acoustic signal packet communicating apparatus according to claim 13, characterized in that: the receiving unit has means for measuring the number of packets stored in the receiving buffer (hereinafter referred to as the "remaining buffer amount"); (par 0054) and the transmitting unit has means for including the remaining buffer amount in the same packet that contains the frame acoustic signal as information for specifying delay amount control information to be set in the transmitting unit at the other end of communication and transmitting the packet (Wang, par 0023, 0054, 0055, 0065). Measuring the number of packets stored in the buffer and it is shown corresponding data for a frame number specified by a delay amount control information from the frame number of the packet.

As to claim 17, Wang disclose an acoustic signal packet communicating program for causing a computer to perform the steps of the acoustic signal packet communicating method according to claim 1 (par 0002, 0003). The paragraphs show using digital audio

streaming applications.

As to claim 18, Wang provide an acoustic signal packet transmitting program for causing a computer to perform the steps of the acoustic signal packet transmitting method according to claim 5 (par 0002, 0003). The paragraphs show using digital audio streaming applications.

As to claim 19, Wang expose an acoustic signal packet receiving program for causing a computer to perform the steps of the acoustic signal packet receiving method according to claim 9 (par 0002, 0003). The paragraphs show using digital audio streaming applications.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Harley whose telephone number is (571)270-5435. The examiner can normally be reached on Monday- Friday 7:00 am-4:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jefferey Harold can be reached on (571)272-7519. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)? If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JH

/Melanie Jagannathan/
Primary Examiner, Art Unit 2468